# VigilLink

# VLHA-DWM

HDMI 2.0 Audio Downmixer 18Gbps

## User Manual

**VER 1.02**

# Thank you for purchasing this product

Please read these instructions carefully for optimum performance and safety before connecting, operating, or adjusting this product. Please keep this manual forfuture reference.

# Surge protection device recommended

This product contains sensitive electrical components that electrical spikes may damage, surges, electric shock, lightning strikes, etc. The use of surge protection systems is highly recommended to protect and extend the life of your equipment.

# Table of Contents

# 1. Introduction

The HDMI 18Gbps Audio Extractor could extract audio signals from any HDMI-compliant source to digital optical or analog stereo L/R audio outputs. This audio extractor also supports bitstream audio down-mix to analog stereo output and keeps optical and HDMI out audio pass-through for maximum flexibility. Further, both input and output HDMI support video resolution up to 4K2K@50/60Hz (YUV444). It supports 10bits HDR (High Dynamic Range) pass-through and HDMI high resolution digital audio formats bypass, LPCM 2CH, Dolby TrueHD, Dolby Digital Plus, Dolby Atmos, and DTS-HD Master Audio, with audio sampling rate up to 192 kHz. HDCP 2.2 and CEC bypass are supported.



It is manufactured under license from Dolby Laboratories.Dolby and the double-D symbol are trademarks of Dolby Laboratories.

## 2. Features

☆ HDMI 2.0b (18Gbps), HDCP 2.2, and DVI compliant

☆ Video resolutions up to 4K2K@50/60Hz (YUV444)

☆ Extracts HDMI audio to multi-channel optical (SPDIF) or L/R analog audio

☆ HDMI Pass-through audio input to HDMI and optical audio output

☆ Supports bitstream audio down-mix to L/R analogoutput

☆ Optical audio supports LPCM 2CH, Dolby Digital 2/5.1CH, DTS 2/5.1CH

☆ Supports HDMI High Bit Rate (HBR) audio pass-through

☆ Audio sample rates up to 96kHz

☆ 10bits HDR (High Dynamic Range) pass-through

☆ Supports CEC pass-through

## 3. Package Contents

① 1× HDMI 18Gbps Audio Extractor
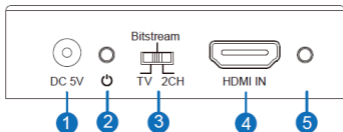
② 1× 5V/1A Power Adapter

③ 1× User Manual

## 4. Specifications

| Technical | |
|---|---|
| HDMI Compliance | HDMI 2.0b |
| HDCP Compliance | HDCP 2.2 and HDCP 1.4 |
| Video Bandwidth | 18Gbps |
| Video Resolutions | Up to 4K2K@50/60Hz(YUV4:4:4), 4K2K@30Hz,1080P@120Hz, and 1080P 3D@60Hz |
| Color Space | RGB, YCbCr 4:4:4, YCbCr 4:2:2 |
| Color Depth | 10-bit, 12-bit |
| HDMI Audio Formats (Pass-through) | LPCM 2/5.1/7.1CH, Dolby Digital, DTS 5.1, Dolby Digital+, Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos, DTS:X |
| Optical Audio Formats | LPCM 2CH, Dolby Digital 2/5.1 CH, DTS 2/5.1CH |
| L/R Audio Formats | Analog Stereo 2CH |
| ESD Protection | Human body model — ±8kV (air-gap discharge) & ±4kV (contact discharge) |

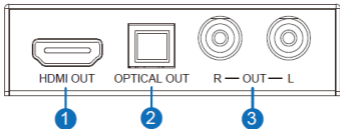| Connections | |
|---|---|
| Inputs | 1x HDMI Type A [19-pin female] |
| Outputs | 1x HDMI Type A [19-pin female]<br>1x L/R Audio Out [RCA]<br>1x Optical Out [S/PDIF] |
| **Mechanical** | |
| Housing | Metal Enclosure |
| Color | Black |
| Dimensions | 73.5mm[W] x 60.7mm[D] x 20mm[H] |
| Weight | 135g |
| Power Supply | Input: AC100 - 240V 50/60Hz<br>Output: DC 5V/1A (US/EU standards, CE/FCC/UL certified) |
| Power Consumption | 1.25W (Max) |
| Operation Temperature | 32 - 104°F / 0 - 40°C |
| Storage temperature | -4 - 140°F / -20 - 60°C |
| Relative Humidity | 20 - 90% RH (Non-Condensation) |

# 5. Operation Controls and Functions

## 5.1 Front Panel



| Number | Name | Function Description |
|--------|------|---------------------|
| 1 | DC 5V | Connect 5V/1A adapter to AC wall outlet for power supply. |
| 2 | Power LED | System power indicator. |
| 3 | TV/Bitstream/2CH | The user allows selecting audio format according to Copy TV, Bitstream, or 2CH. TV: Copy EDID from TV. Bitstream: Multi-channel audio up to six channels. 2CH: 2 channel Stereo PCM. |
| 4 | HDMI IN | HDMI video input. |
| 5 | Status LED | Red illuminate: PCM decoder or No signal Red blinking: Dolby decoder Green blinking: DTS decoder |

## 5.2 Rear Panel



| Number | Name | Function Description |
|--------|------|----------------------|
| 1 | HDMI OUT | HDMI output for display connectivity. |
| 2 | OPTICAL Out | Toslink digital audio output (mirrors HDMI). |
| 3 | R/L OUT | Stereo RCA analog audio output. |

# 6. Application Example



AV Receiver

HDMI

Power Supply

HDMI OUT    OPTICAL OUT    L    OUT    R

Active Speakers

5Vdc    HDMI IN    Fiber

HDMI

DVD or Blu-ray Player